

Remarks

Applicants request entry of the amendments and reexamination of the application.

Claim 32 has been amended to add the recitation "an amino acid sequence of at least 95% identity to the full length PAP1 sequence of SEQ ID NO: 2." At page 5 of the specification and elsewhere, a sequence having 95% identity to one of the sequences in the sequence listing is specifically noted. For example, at page 5, lines 19 and 14, SEQ ID NO: 1 and 2 are specifically discussed. In the originally filed specification, SEQ ID NO: 1 contains both a nucleic acid and amino acid sequence while SEQ ID NO: 2 contains only an amino acid sequence. Thus, the discussion in the original specification clearly indicates that, for example, a sequence of at least 95% identity to the amino acid sequence in original SEQ ID NO:1 is specifically recited.

Claim 38 has been amended to clarify the effector region language. A page 8, line 27 through page 9, line 7, the specification specifically addresses the effector region and the nonfunctional effector region.

Claim 39 has been amended to remove the "fragment" language. And the duplicate sequences from the Sequence Listing.

New claims 63-65 recite a PAP1 protein of claim 32, where a specific change in the sequence of SEQ ID NO: 2 is included. Both of the amino acid changes recited in these claims will result in a peptide within the 95% sequence identity of claim 32, and both of the amino acid substitutions are present in SEQ ID NO: 15. At numerous places (see page 7 for example), the specification refers to peptides of PAP1 including SEQ ID NO: 2 and SEQ ID NO: 15. The only difference between the amino acid sequence of SEQ ID NO: 2 and that of SEQ ID NO: 15 (aside from the N-term truncation) is the 2 amino acid substitutions listed in new claims 63-65.

A revised Sequence Listing is also being submitted on even date. The revisions make clear that sequences 42, 43, 44, and 45 are duplicates of sequences 12, 13, 14, and 15, respectively.

No new matter enters by these amendments.

Correction of Sequence Listing

As requested by the Examiner, applicants are submitting a revised Sequence Listing. In addition, amended claim 39 removes the duplicate sequences from the claim. The application now complies with the rules for applications containing sequence information.

Rejection under 35 U.S.C. § 101

Claim 38 stands rejected under 35 U.S.C. § 101 because there is allegedly no specific or substantial utility for the claimed invention.

Applicants have amended claim 38 to make clear that it is not the claimed compound of claim 38 that is nonfunctional as asserted in the Office Action. Instead, it is the effector region within the claimed compound that has been rendered nonfunctional. The specification at page 8, lines 27-30 specifically discusses an "effector region."

Applicants request withdrawal of this rejection.

Rejections under 35 U.S.C. § 112, First Paragraph

Claim 38 is rejected under 35 U.S.C. § 112, first paragraph, for the reasons listed in the rejection under §101. As noted above, page 8, lines 27-30 specifically discuss an "effector region." The utility as a partial inhibitor of parkin or an ability of proteins to bind to parkin is specifically noted at page 9 of the specification.

Applicants request withdrawal of this rejection.

Claims 32-33, 37-42, 53, and 59 stand rejected under 35 U.S.C. § 112, first paragraph, for allegedly containing subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventors had possession of it. Applicants respectfully disagree.

Applicants note that claims 40-42 have been canceled. Also, claim 32, upon which all these rejected claims depend, has been amended. Amended claim 32 recites a peptide having an amino acid sequence of at least 95% identity to SEQ ID NO: 2. The amino acids sequence of SEQ ID NO: 2 was clearly possessed and described in applicants' specification. As noted above, taking the full length of PAP1 into account, the amino acid

sequence of SEQ ID NO: 15 also reveals at least 95% identity to the PAP1 sequence. The specification also specifically refers to SEQ ID NO: 2, 15, and sequences with 95% identity to them.

Applicants submit that the specification clearly shows to one of skill in the art that they were in possession of the sequences claimed in claims 32, 3-39, 53, and 59

Applicants request reconsideration and withdrawal of this rejection.

Claims 32-33, 37-42, 53, and 59 stand rejected under 35 U.S.C. § 112, first paragraph, for allegedly failing to enable a person of skill in the art to make and use the invention.

The PTO specifically notes that the specification is enabling for the PAP1 sequence of SEQ ID NO: 2. Amended claim 32 recites a peptide of at least 95% identity to SEQ ID NO: 2. Applicants submit that the known ability in the art to make and use altered amino acid sequences of this identity range, the specific disclosures in the specification about 95% identity, and the specific disclosure of substitutions when comparing the PAP1 sequence of SEQ ID NO: 2 with SEQ ID NO: 15 (at positions 148 and 321 of SEQ ID NO:2), demonstrate that one of skill in the art would have no trouble making and using the invention as claimed.

Applicants respectfully request reconsideration and withdrawal of this rejection.

Rejections under 35 U.S.C. § 112, Second Paragraph

Claims 32-33, 37-42, 53, and 59 stand rejected under 35 U.S. C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention.

Applicants are unsure of the significance the term "selective" noted in the Office Action.

Applicants have amended claim 32, upon which all these claims depend. Amended claim 32 refers to PAP1 sequences. The specification, beginning at Example 1 on page 25, shows how the sequence was identified from its ability to bind a central portion of Parkin. In addition, Example 5 refers to the "Specificity" of interaction between PAP1 and Parkin. As stated at page 29, lines 24-25, "this interaction turns out o be specific, since this

fragment of PAP1 does not seem to interact with the cAPP or HaRasVal12 proteins.” Thus, from at least this description, one of skill in the art has particular knowledge of the specific interaction between a PAP1 protein and Parkin. Furthermore, one of skill in the art is familiar with the term “specific interaction” as it is used here.

Applicants respectfully request withdrawal of this rejection.

Rejections under 35 U.S.C. § 102

Claims 32-33, 37-42, 53, and 59 stand rejected under 35 U.S.C. § 102(e) as allegedly anticipated by Tang (WO 01/46256).

Amended Claim 32 recites a peptide having an amino acid sequence of at least 95% identity to the full length PAP1 sequence of SEQ ID NO: 2. The SEQ ID NO: 3 of Tang, contrary to the statements in the Office Action, is a truncation of the full length sequence of PA1 in applicants SEQ ID NO: 2. The Tang sequence begins with the Met of position 32 of applicants SEQ ID NO:2 . Therefore, Tang cannot anticipate claim 32 or any of the claims dependent upon it.

Furthermore, as stated previously, the Office Action points to no statement or suggestion in Tang that relates to an interaction with parkin.

This rejection should be withdrawn.

The application is in condition for allowance. Timely notification of allowability is requested.

If there are any additional fees due with the filing of this document, including fees for the net addition of claims, applicants respectfully request that any and all fees be charged to Deposit Account No. 50-1129. If any extension of time request or any petition is required

Appl. No. 09/785,548
Reply and Amendment
Reply to Office Action of Dec. 23, 2003

for the entry of this paper or any of the accompanying papers, applicants hereby petition or request the extension necessary. The undersigned authorizes any fee payment from Deposit Account No. 50-1129. Furthermore, if additional extensions of time are required to enter this amendment beyond any provided for, applicants respectfully request an extension and the undersigned hereby authorizes that any fees be taken from Deposit Account No. 50-1129.

Respectfully submitted,
Wiley Rein & Fielding LLP

Date: June 14, 2004



David J. Kulik
Reg. No. 36,576

WILEY REIN & FIELDING LLP
Attn: Patent Administration
1776 K Street, N.W.
Washington, D.C. 20006
Telephone: 202.719.7000
Facsimile: 202.719.7049